

THURSDAY
March 5

Oral Presentation

Lecture Hall 2 D

10:00 - 11:15 a.m.

RENAL HEMODYNAMICS

Chairpersons: Simon E. Bad Nauheim
Deetjen P. Innsbruck

- 219. Nobiling R, Harlacher M: Contractile responses and Ca^{2+} transients in renal arterioles of hydronephrotic mice and rats
- 220. Hoffend J, Cavarape A, Steinhausen M (technical assistance Düssel R): Differential effects of L-NAME on cortical and juxtamedullary nephrons in the split hydronephrotic kidney of rats
- 221. Parekh N, Zou AP, Jüngling I, Endling KH, Sadowski J, Steinhausen M: Interaction between autoregulation of renal medullary blood flow and medullary prostaglandins
- 222. Baumann JE, Persson PB, Ehmke H, Nafz B, Kirchheim HR: Role of endothelium-derived relaxing factor in renal autoregulation in conscious dogs
- 223. Lang F, Tschernko E, Öttl I, Häussinger D: Evidence for liver borne diuretic factor

11:30 a.m. - 1:10 p.m.

Cl-CHANNELS (Mini-Symposium)

Chairpersons: Greger R, Freiburg
Bijman J, Rotterdam

- 232. Kreusel K-M, Rapp K, Hegel U: Effect of acetylcholine on secretion of mucin and chloride in the intestinal cell line HT-29/B6
- 233. Devuyst O, Aspesberro F, Hoste AM, Beaujean V, Crabbé J: Effects of salinity changes on the chloride pathway and the acid-base status of the toad *Bufo marinus*
- 234. Schröder UH, Kartner N, Frömter E, Riordan JR: A monoclonal antibody against CFTR inhibits the cAMP activated Cl conductance in fused human nasal polyp epithelial cells
- 235. Bijman J, Dalemans W, Keulemans J, Hoogeveen A, de Jonge HR, Scholte BJ: Expression of CFTR in rat pre-crypt intestinal epithelial cells, immortalized CF nasal epithelial cells and simian vero fibroblasts
- 236. Kunzelmann K, Kubitz R, Grolik M, Greger R: Na^{+} and Cl-conductance in respiratory epithelial cells

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Oral Presentation

Lecture Hall 3 E

10:00 - 11:15 a.m.

CARDIAC ELECTROPHYSIOLOGY

Chairpersons: Alessie M, Maastricht
Pott L, Bochum

- 311. Alessie M, Kirchhof C, Scheffer GJ, Chorro F, Brugada J, Boersma L: The effects of local electrical stimulation on atrial fibrillation in dogs
- 312. Banach K, Hüser J, Pott L: Effects of cyclic nucleotides on muscarinic K^{+} current in atrial myocytes
- 313. Nagel GA, Hwang T-C, Naim AC, Gadsby DC: Chloride channels in excised giant patches from ventricular myocytes are activated by PKA but require ATP to open
- 314. Lipp P, Niggli E: Ca^{2+} -transients in the nucleus and cytoplasm as revealed by confocal microscopy in cardiac myocytes
- 315. Bechem M, Hoffmann H: Kinetics of (-)bay K 8644 action: Implications for the molecular interaction with the Ca channel

11:30 a.m. - 1:10 p.m.

MICROCIRCULATION

Chairpersons: Duling BR, Charlottesville
Reneman RS, Maastricht

- 480. Theilen H, Schröck H, Kuschinsky W: Capillary perfusion in the brain during reduced perfusion pressure
- 481. Tangelder GJ, Arfors K-E, Janssens CJG, Slaaf DW, Reneman RS: Inhibition of granulocyte rolling in venules does not recruit the marginal granulocyte pool
- 482. oude Egbrink MGA, Tangelder GJ, Slaaf DW, Reneman RS: Influence of the thromboembolic reaction on leukocyte rolling in vivo
- 483. Ley K, Gaetgens P, Tözener A: Biomechanics of leukocyte rolling in vivo mediated by vascular selectins: experiments and modeling
- 484. Kuebler WM, Kuhnle G, Groh J, Goetz AE: Leukocyte/endothelial interaction in pulmonary microvessels
- 485. Kok WEM, Borgdorff P, van den Bos GC: Platelet activation and serotonin release mediate flow increase in the rat hindlimb during partial occlusion of a tube connecting carotid and femoral artery

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Poster Session

TRANSMITTER I

Chairperson: Rietveld WJ, Leiden

21. Walsh IB, van den Berg RJ, Rietveld WJ: Voltage dependent conductances in cultured rat suprachiasmatic neurons
22. Zeilhofer UH, Brune K, Swandulla D: Stereoselective effects of ketamine enantiomers on NMDA-activated currents in hippocampal neurons
23. Schneggenburger R, Konnerth A: Calcium permeation through AMPA/KAI receptor channels of rat medial septal neurons
24. Leßmann V, Gottmann K, Lux HD: Evans blue reduces desensitization of non-NMDA receptors and prolongs the decay of synaptic currents in thalamic neurons
25. Garcia DE, Cavalieri A, Lux HD: Long-term calcium current induction by glutamate in hippocampal neurons
26. Dörner R, Schlue W-R: PH-changes during glutamatergic stimulation in the leech central nervous systems
27. Kruse M, Schmidt K-F: Effects of magnesium, kynurenine and concanavalin A on ligand-gated currents and their modulation by dopamine in retinal horizontal cells of the perch (*perca fluviatilis*)
28. Keller BU, Dreessen J, Hollmann M, Heinemann S, Konnerth A: Video imaging analysis of calcium influx through recombinant KA/AMPA receptor channels expressed in *Xenopus* oocytes
29. Keller BU, Hollmann M, Heinemann S, Konnerth A: Calcium influx through KAINATE/AMPA receptor channels is regulated by cAMP dependent protein-kinase
30. Mußhoff U, Madeja M, Bloms P, Speckmann E-J: Block of expression of functional glutamate receptors in *Xenopus* oocytes after inhibition of glycosylation by tunicamycin
31. Gottmann K, Pfrieger FW, Lux HD: In vitro development of excitatory, glutamatergic synapses in thalamic neurons
32. Hasenöhrl RU, Boix F, Gerhardt P, Adams F, Schwarting RKW, Huston JP: Effects of substance P on memory, reinforcement, and neural transmission as assessed by in vivo microdialysis

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Poster Session

GLIA, TRANSPORT

Chairperson: Lehmenkühler A, Münster

64. Omay HS, Schwarz W: Selective Access of K⁺ congeners to the sodium pump of *Xenopus* oocytes
65. Busch S, Siffert W: *Xenopus laevis* oocytes display Na⁺/H⁺ exchange but not Na⁺-Li⁺ countertransport
66. Lönnendonker U, Deitmer JW: Inhibitions of the Na⁺/H⁺ exchanger in leech retzius neurones by stimulation of protein kinase C
67. Deitmer JW, Schneider HP, Munsch T: Calcium and pH transients in identified leech glial cells evoked by ammonium are not related
68. Walz W, Magoski NS: P₂-purinergic receptor mediated depolarization of cultured astrocytes
69. Svoboda J, Lehmenkühler A, Sykova E: Extracellular volume fraction in the developing neocortex
70. Richter F, Lehmenkühler A, Speckmann E-J: Spreading depression in neocortex: Propagating waves of DC potential recorded in different cortical depths
71. Henke A, Eberhardt W, Reichenbach A: Voltage-dependent K⁺ channels of enzymatically isolated rabbit retinal Müller (glial) cells
72. Müller T, Möller T, Berger T, Schnitzer J, Kettenmann H: Calcium entry through kainate receptors blocks resting potassium currents in cerebellar Bergmann glial cells
73. Koeller H, Pekel M, Siebler M: Depolarization of cultured cerebral astrocytes by leukotriene B₄ is reduced by cycloheximide
74. Howe JR, Baker M, Ritchie JM: Internal Na⁺ ions block outward K⁺ currents in rabbit Schwann cells

SYNAPTIC PLASTICITY

Chairperson: Reymann KG, Magdeburg

85. Müller W, Connor JA: Synaptic Ca^{2+} responses in dendritic spines: the spine as a neuronal processing unit
86. Hoheisel U, Mense S: The influence of substance P on the synaptic efficacy of afferent input to dorsal horn neurones in the rat
87. Schulze-Bonhage A, Altrup U, Speckmann E-J, Wittkowski W: Phototoxic degeneration of lucifer yellow-stained neurites induced by confocal laser illumination (Buccal ganglia, *Helix pomatia*)
88. Kano M, Rexhausen U, Dreessen J, Konnerth A: Rebound potentiation of inhibitory synaptic currents following synaptic excitation in cerebellar Purkinje cells
89. Schwarzberg H, Pross M: Addition of peptide actions on the passive avoidance reaction of the rat
90. Ballanyi K, Kuipers U, Doutheil J, Richter DW: Microenvironment of dorsal vagal motoneurons in rat during energy depletion
91. Doutheil J, Ballanyi K, Richter DW: Differential sensitivity of cranial motoneurons in rat brainstem slices to energy deprivation
92. Mies G, Iijima T, Hossmann K-A: Effect of N-methyl-D aspartate (NMDA) antagonist MK-801 on brain infarct size and peri-infarct DC shifts
93. Mittmann T, Luhmann HJ, Schmidt-Kastner R, Eysel UT, Heinemann U: Transient hyperexcitability induced by focal thermolesion in rat neocortex
94. Schmidt-Kastner R, Kretschmann U, Eysel UT: Neuropathological and immunohistochemical changes in relation to neurophysiological recordings in focal lesions of cat visual cortex
95. Kretschmann U, Eysel UT, Schmidt-Kastner R: Photothrombosis as a model of focal infarction in cat visual cortex
96. Wehling P, Cleveland S, Pak M: Interleukin-1 enhances the regeneration of severed peripheral nerves
97. Schwab M, Schaller R, Bauer R, Zwiener U: A model of combined forebrain ischemia and acute systemic hypoxia in rats - changes in EEG, behaviour and brain morphology

CHANNELS I

Chairperson: Pape H-C, Bochum

128. Mironov SL: Channels with memory: A novel mechanism of ion permeation
129. Böhm T, Linde T, Markwardt F: Computer program for analysis of single-channel patch-clamp data from experiments with voltage ramps
130. Müller W, Lux HD: Analysis of voltage dependent membrane currents in spatially extended neurons from point clamp data
131. Vreugdenhil M, Wadman WJ: Potassium currents after kindling epileptogenesis measured in acutely isolated rat CA1 hippocampal neurons
132. Karst H, Wadman WJ, Joels M: Selective modulation of the inward rectifier in hippocampal CA1 neurons by corticosterone
133. Goldermann M, Hanke W, Schlue W-R: The modulation of single potassium channels in leech sensory neurones by phosphorylation
134. Eder C, Ficker E, Gundel J, Heinemann U: Outward currents in rat entorhinal cortex stellate cells studied with conventional and perforated patch recordings
135. Budde T, Mager R, Pape H-C: Three transient potassium outward currents in relay neurons of the rat lateral geniculate nucleus
136. Belluzzi O, Bardoni R, Magherini PC: Potassium currents in granule neurones from rat cerebellar slices
137. Strauß O, Wienrich M: Membrane currents in cultured cells of the retinal pigment epithelium of the rat: studies in the whole-cell configuration of the patch-clamp technique